

1. Creativity and Innovation
2. Communication and Collaboration
3. Research and Information Fluency
4. Critical Thinking, Problem Solving, and Decision Making
5. Digital Citizenship
6. Technology Operations and Concepts

NETS for Students 2007 profiles

A major component of the NETS Project is the development of a general set of profiles describing technology (ICT) literate students at key developmental points in their precollege education. The profiles highlight a few important types of learning activities in which students might engage as the new NETS•S are implemented. These examples are provided in an effort to bring the standards to life and demonstrate the variety of activities possible. The profiles are divided into the following four grade ranges. Because grade-level designations vary in different countries, age ranges are also provided.

Standards:

1. Creativity and Innovation
2. Communication and Collaboration
3. Research and Information Fluency
4. Critical Thinking, Problem Solving, and Decision Making
5. Digital Citizenship
6. Technology Operations and Concepts

For more information about the ISTE-NETS standards, please visit their website at:

<http://www.iste.org/AM/Template.cfm?Section=NETS>

For implementation resources, please visit the Wiki at:

<http://nets-implementation.iste.wikispaces.net/>

Sample Activities for Grades PK–2 (Ages 4–8)

Standards are listed at the top of each page for your convenience

<p><i>The following experiences with technology and digital resources are examples of learning activities in which students might engage during PK-Grade 2 (Ages 4-8):</i></p> <p>1. Illustrate and communicate original ideas and stories using digital tools and media-rich resources. (1,2)</p> <div data-bbox="405 557 802 703" style="border: 1px solid red; padding: 5px; margin-top: 20px;"> <p>The numbers in parentheses indicate which standards are addressed by this activity.</p> </div>	<p><i>Here are some sample resources that could be used with the corresponding activity on the left:</i></p> <ul style="list-style-type: none"> • Drawing on the SMART/Promethean board/Inspire Software • Draw using Paint on the computer, scdiscus.org (Discus Kids) • Draw on Crayola.com, Display work on Document Cameras • Create picture webs using Kidspiration, mywebspiration.com, bubblus.com • Digital storytelling using Moviemaker, Powerpoint, Photostory, Voicethread.com, photopeach.com, wordle.net, podcasting (audacity), Crazytalk, Take Photos, Videos • Publisher, Glogster • http://www.artsconnected.org/toolkit/index.html • http://www.coloring.com/pictures/choose.cdc • http://school.discoveryeducation.com/clipart/ • http://puzzlemaker.school.discovery.com/FallenPhraseSetupForm.html <div data-bbox="1751 310 1978 410" style="border: 1px solid blue; padding: 5px; margin-top: 20px;"> <p>Must be a resident of SC to access</p> </div>
<p>2. Identify, research, and collect data on an environmental issue using digital resources and propose a developmentally appropriate solution. (1,3,4)</p>	<ul style="list-style-type: none"> • Research using websites such as www.enchantedlearning.com, www.scdiscus.org, Wonderful Winning Websites, Destiny Quest • Type research using Word, PowerPoint • Use voicethread.com or video cameras, digital cameras for Interviews • Data Gathering, News Programs, Create Publications in Publisher, Newsletters, Posters in Glogster.com • Utilize Google Earth, Google Maps, Pics4Learning.com • Participate in Virtual Field Trips or Video Conferences using Webcams, Skype, United Streaming Resources • T-Search Project

Sample Activities for Grades PK–2 (Ages 4–8) (*continued*)

3. Engage in learning activities with learners from multiple cultures through e-mail and other electronic means. (2,6)	<ul style="list-style-type: none"> • Participate in Virtual Field Trips or Video Conferencing using Skype, Webcams, Breeze, DimDim.com • Email Using teacher account or e-pal accounts, typing letters in Word and software programs to guest speakers, pen pals
4. In a collaborative work group, use a variety of technologies to produce a digital presentation or product in a curriculum area. (1,2,6)	<ul style="list-style-type: none"> • Use document cameras to display work • Use software such as PowerPoint, VoiceThread.com, Movie Maker, Photo Story, Podcasting, Video presentation, Inspire software, United Streaming • News Team, Publish Art Work, Commercials, Inspire Software • HUE document/webcam, Flip videos
5. Find and evaluate information related to a current or historical person or event using digital resources. (3)	<ul style="list-style-type: none"> • Use websites to research historical figures, write scripts for podcasting or video, interview people in community, Virtual Field Trips to Museums, United Streaming • http://www.enchantedlearning.com/Aisfor.shtml • http://www.factmonster.com/ • http://www.kidsclick.org/ • http://www.kidrex.org/ • http://www.allsafesites.com/ • http://www.nbcnewsarchives.com/ • http://www.loc.gov/teachers/
6. Use simulations and graphical organizers to explore and depict patterns of growth such as the life cycles of plants and animals. (1,3,4)	<ul style="list-style-type: none"> • www.mywebspiration.com • www.Pics4Learning.com • United Streaming, • http://compass.greenville.k12.sc.us

1. Creativity and Innovation 2. Communication and Collaboration 3. Research and Information Fluency 4. Critical Thinking, Problem Solving, and Decision Making
5. Digital Citizenship 6. Technology Operations and Concepts

Sample Activities for Grades PK–2 (Ages 4–8) (*continued*)

<p>7. Demonstrate safe and cooperative use of technology. (5)</p>	<ul style="list-style-type: none"> • Computer Lab, Laptop Cart, Computer Center Procedures • Cyber citizenship, www.kidsafe.org, www.netsmarts.org, Student Contract, Parent Contract, unique passwords • http://www.ikeepsafe.org/iksc_kids/ • http://www.netsmartzkids.org/indexFL.htm • http://pbskids.org/license/
<p>8. Independently apply digital tools and resources to address a variety of tasks and problems. (4,6)</p>	<ul style="list-style-type: none"> • Menus of choices: students choose which software programs to use, Office Tools to use, Presentation style, to demonstrate their knowledge. • Teacher sets up spreadsheet for students • Centers • http://interactives.readwritethink.org/ • http://www.kerpoof.com/ • http://www.magneticpoetry.com/kidspoetry/ • http://flockdraw.com
<p>9. Communicate about technology using developmentally appropriate and accurate terminology. (6)</p>	<ul style="list-style-type: none"> • Vocabulary activities: wordle.net; label equipment; Video • role play, center time • http://kids.learn2type.com/index.cfm?action=Tots&subaction=Typing

1. Creativity and Innovation 2. Communication and Collaboration 3. Research and Information Fluency 4. Critical Thinking, Problem Solving, and Decision Making
5. Digital Citizenship 6. Technology Operations and Concepts

10. Demonstrate the ability to navigate in virtual environments such as electronic books, simulation software, and Web sites. (6)	<ul style="list-style-type: none">• http://www.raz-kids.com/• http://greenville.lib.overdrive.com• storyonline.net• http://compass.greenville.k12.sc.us• Waterford• Math and Reading Games online• http://www.scdiscus.org• http://www.enchantedlearning.com• http://www.scholastic.com• http://kids.yahoo.com• http://www.kigose.com• http://www.kids.gov
---	--

Sample Activities for Grades 3-5 (Ages 8–11)

<p><i>The following experiences with technology and digital resources are examples of learning activities in which students might engage during Grades 3-5 (Ages 8-11):</i></p> <ol style="list-style-type: none"> 1. Produce a media-rich digital story about a significant local event based on first-person interviews. (1,2,3,4) 	<p><i>Here are some sample resources that could be used with the corresponding activity on the left:</i></p> <ul style="list-style-type: none"> • Use digital still and video cameras with movie maker, photostory • Voicethread.com • scrapblog.com • www.ourstory.com
<ol style="list-style-type: none"> 2. Use digital-imaging technology to modify or create works of art for use in a digital presentation. (1,2,6) 	<ul style="list-style-type: none"> • Websites such as animoto, photo peach, slide.net, scrapblog.com, voicethread.com • Software such as tuxpaint (www.tuxpaint.org), Windows Paint • digital still and movie cameras
<ol style="list-style-type: none"> 3. Recognize bias in digital resources while researching an environmental issue with guidance from the teacher. (3,4) 	<ul style="list-style-type: none"> • website evaluations • research using primary sources (online encyclopedias, actual documents, virtual field trips with subject matter experts) and compare to info obtained from digital sources (i.e. Wikipedia, websites, blogs)
<ol style="list-style-type: none"> 4. Select and apply digital tools to collect, organize, and analyze data to evaluate theories or test hypotheses. (3,4,6) 	<ul style="list-style-type: none"> • Use menus to select tools to use for project completion and presentation • Tools include MS Office programs, Student Response systems (Activote, Activexpression, Senteo, etc) Graph Club, Timeliner

Sample Activities for Grades 3-5 (Ages 8–11) (*continued*)

5. Identify and investigate a global issue and generate possible solutions using digital tools and resources (3,4)	<ul style="list-style-type: none"> • use online (scdiscus.org) and media center resources for research, email and letters to relevant organizations and individuals, surveys (google apps, surveymonkey.com), etc.
6. Conduct science experiments using digital instruments and measurement devices. (4,6)	<ul style="list-style-type: none"> • Digital Microscope, Document and Webcams, Probes, GPS, etc.
7. Conceptualize, guide, and manage individual or group learning projects using digital planning tools with teacher support. (4,6)	<ul style="list-style-type: none"> • Concept Maps (kidspiration, mywebspiration.com, CMAP), K-W-L and other charts in ActivInspire, SMART, and Office programs, Student Learning Contracts, Goal-setting sheets
8. Practice injury prevention by applying a variety of ergonomic strategies when using technology. (5)	<ul style="list-style-type: none"> • www.safekids.org, learn and make educational poster or video • http://www.oro sha.org/cergos/index.html
9. Debate the effect of existing and emerging technologies on individuals, society, and the global community. (5,6)	<ul style="list-style-type: none"> • Use online (scdiscus.org) and media center resources for research, email and letters to relevant organizations and individuals, surveys (google apps, surveymonkey.com), etc. • Digital Citizenship = slideshare.net
10. Apply previous knowledge of digital technology operations to analyze and solve current hardware and software problems. (4,6)	<ul style="list-style-type: none"> • classroom tech team, students helping other students, student "lab manager"

Sample Activities for Grades 6-8 (Ages 11–14)

<p><i>The following experiences with technology and digital resources are examples of learning activities in which students might engage during Grades 6-8 (Ages 11-14):</i></p> <p>1. Describe and illustrate a content-related concept or process using a model, simulation, or concept-mapping software. (1,2)</p>	<p><i>Here are some sample resources that could be used with the corresponding activity on the left:</i></p> <ul style="list-style-type: none"> • Concept Maps (inspiration, mywebspiration.com, CMAP) • K-W-L and other charts in ActivInspire, SMART, and Office programs • explorelearning.com • (gizmos) • Prezi.com
<p>2. Create original animations or videos documenting school, community, or local events. (1,2,6)</p>	<ul style="list-style-type: none"> • Use digital still and video cameras • moviemaker, photostory, animoto, other video editing software • prezi.com
<p>3. Gather data, examine patterns, and apply information for decision making using digital tools and resources. (1,4)</p>	<ul style="list-style-type: none"> • Surveys • Student Response Systems • Excel, Word
<p>4. Participate in a cooperative learning project in an online learning community. (2)</p>	<ul style="list-style-type: none"> • Blogs, Wikis • Virtual field trip • 2-way video conference with others • Ning groups • Email • Podcasts

Sample Activities for Grades 6-8 (Ages 11-14) (*continued*)

5. Evaluate digital resources to determine the credibility of the author and publisher and the timeliness and accuracy of the content. (3)	<ul style="list-style-type: none"> • website evaluations • research using primary sources (online encyclopedias, actual documents, virtual field trips with subject matter experts) and compare to info obtained from digital sources (i.e. Wikipedia, websites, blogs)
6. Employ data-collection technology such as probes, handheld devices, and geographic mapping systems to gather, view, analyze, and report results for content-related problems. (3,4,6)	<ul style="list-style-type: none"> • GPS, GIS, Probes • Use computers to create maps, locate coordinates, graph data
7. Select and use the appropriate tools and digital resources to accomplish a variety of tasks and to solve problems. (3,4,6)	<ul style="list-style-type: none"> • Use layered curriculum model • Project-based learning where students have choices of topics and tools
8. Use collaborative electronic authoring tools to explore common curriculum content from multicultural perspectives with other learners. (2,3,4,5)	<ul style="list-style-type: none"> • Blogs, Wikis • virtual field trips videoconferencing • Breeze • email • Ning groups
9. Integrate a variety of file types to create and illustrate a document or presentation. (1,6)	<ul style="list-style-type: none"> • create multimedia projects using Office tools, graphic editing programs, video editing, prez.com, etc.

1. Creativity and Innovation 2. Communication and Collaboration 3. Research and Information Fluency 4. Critical Thinking, Problem Solving, and Decision Making
5. Digital Citizenship 6. Technology Operations and Concepts

10. Independently develop and apply strategies for identifying and solving routine hardware and software problems. (4,6)	<ul style="list-style-type: none">• *NOTE* - GCSD does not advocate having students do hardware and software troubleshooting. Basic problem-solving skills can be used by anyone when using technology and a problem is encountered. Hardware and software repair, however, should be performed by district technicians.
--	---

1. Creativity and Innovation 2. Communication and Collaboration 3. Research and Information Fluency 4. Critical Thinking, Problem Solving, and Decision Making
5. Digital Citizenship 6. Technology Operations and Concepts

Sample Activities for Grades 9-12 (Ages 14–18)

<p><i>The following experiences with technology and digital resources are examples of learning activities in which students might engage during Grades 6-8 (Ages 11-14):</i></p> <p>1. Design, develop, and test a digital learning game to demonstrate knowledge and skills related to curriculum content. (1,4)</p>	<p><i>Here are some sample resources that could be used with the corresponding activity on the left:</i></p>
<p>2. Create and publish an online art gallery with examples and commentary that demonstrate an understanding of different historical periods, cultures, and countries. (1,2)</p>	<ul style="list-style-type: none"> • http://www.panraven.com • http://sxc.hu for royalty free stock photography • http://www.furiae.com for digital painting inspiration • http://www.cgsociety.org more cg inspiration • http://www.mariaclaudiacortes.com for color theory • http://kuler.adobe.com for color planning • http://www.videohelp.com for video conversion help • http://www.flashkit.com for fonts, sound loops, and flash animation ideas • Voicethread.com • Glogster.com • Google Earth and Maps
<p>3. Select digital tools or resources to use for a real-world task and justify the selection based on their efficiency and effectiveness. (3,6)</p>	<ul style="list-style-type: none"> • Surveymonkey.com • Prezi.com • Office applications • Google Apps • Teachertube.com

Sample Activities for Grades 9-12 (Ages 14–18)(*continued*)

4. Employ curriculum-specific simulations to practice critical-thinking processes. (1,4)	<ul style="list-style-type: none"> • Virtual Math Manipulatives - http://nlvm.usu.edu/en/nav/vlibrary.html • Geocaching activities and GPS tools • Gizmos – http://www.explorellearning.com/
5. Identify a complex global issue, develop a systematic plan of investigation, and present innovative sustainable solutions. (1,2,3,4)	<ul style="list-style-type: none"> • Inspiration software • www.mywebspiration.com • www.wallwisher.org
6. Analyze the capabilities and limitations of current and emerging technology resources and assess their potential to address personal, social, lifelong learning, and career needs. (4,5,6)	<ul style="list-style-type: none"> •
7. Design a Web site that meets accessibility requirements. (1,5)	<ul style="list-style-type: none"> • Student subsites on teacher websites • Wikis and blogs
8. Model legal and ethical behaviors when using information and technology by properly selecting, acquiring, and citing resources. (3,5)	<ul style="list-style-type: none"> • Copyright laws (use Intel Teach to the Future resources) • School Librarians can offer guidance and resource materials • Web-based tools to help create citations http://www.easybib.com http://citationmachine.net/

1. Creativity and Innovation 2. Communication and Collaboration 3. Research and Information Fluency 4. Critical Thinking, Problem Solving, and Decision Making
5. Digital Citizenship 6. Technology Operations and Concepts

<p>9. Create media-rich presentations for other students on the appropriate and ethical use of digital tools and resources. (1,5)</p>	<ul style="list-style-type: none"> Research the topic, then use these tools to create the presentation: www.prezi.com www.animoto.com www.panraven.com PowerPoint Moviemaker or other video editing software Flip or other camcorder Digital photographs and Photostory
<p>10. Configure and troubleshoot hardware, software, and network systems to optimize their use for learning and productivity. (4,6)</p>	<ul style="list-style-type: none"> Courses are offered at district Career Centers for these topics.